

NOTE

Types and Voucher Specimens of New World Aulacidae (Hymenoptera) in the Naturhistoriska Riksmuseet, Stockholm, Sweden

Kieffer (1904) and Roman (1917) described several New World species of Aulacidae, the types of which are deposited in the Naturhistoriska Riksmuseet, Stockholm, Sweden (NHRS). Additionally, Roman (1917) recorded other species from South America based on specimens located in the same museum. Some of these specimens are not clearly labeled. I had the opportunity to study these specimens and here record them and designate several lectotypes that I feel are necessary.

Aulacinus amazonicus Roman 1917: 18. This was described from "1 female." The holotype is labeled "Mana-os," "Amazon Roman," "Type" (small white label), and Roman's determination label. I have added a red holotype label. Smith (2005) redescribed and illustrated this species. The correct combination is *Aulacus amazonicus* (Roman) (Smith 2001).

Pristaulacus zonatipennis Roman 1917: 18. This was described from "1 female." The holotype is labeled "Amazon Roman," "Mana-os," "Type" (small white label), and Roman's determination label. I have added a red holotype label. It was redescribed and illustrated by Smith (2005). The species is correctly placed in *Pristaulacus*.

Pristaulacus haemorrhoidellus (Westwood). Roman (1917: 18) recorded two females from Rio Autaz, Cururuzinho, Brazil. Two females labeled "Rio Autaz" and "Amazon Roman" are at NHRS, one with Roman's determination label. Both are certainly the specimens Roman recorded, and I have labeled both specimens. Both specimens were correctly identified.

Pristaulacus bicornutus (Schletterer). Roman (1917: 18) recorded one female from Rio Autaz, Cururuzinho, Brazil, and one female from Manaus, Rio Taruma, Brazil. Both specimens on which Roman's records are based are at NHRS, one labeled "Mana-os," "Amazon Roman" and the other "Rio Autaz," "Amazon Roman." One bears Roman's determination label. The species is a synonym of *Pristaulacus ruficeps* (Westwood) (Smith 2005), and I have labeled both specimens as such.

Pristaulacus flavipes Kieffer 1904: 559. Kieffer described this species from "3 Exemplare," all males, from "Illinois: Belfrage." Three specimens at NHRS bear the labels "Illinois" and "Belfrage," but only one has an additional label "type" and handwritten label "*Pristaulacus flavipes*." I designate the specimen with the type label as lectotype, to preserve stability of the name. The other two specimens are labeled paralectotypes. *Pristaulacus flavipes* was correctly placed as a synonym of *Pristaulacus flavicrurus* (Bradley) by Townes (1950).

Aulacus erythrogaster Kieffer 1904: 561. This was described from "Nevada (3 ♀, 1 ♂)." There are two ♀ and two males labeled "Nevada" at NHRS, but only one ♀ and one ♂ have a small "type" label. Perhaps Kieffer recorded the wrong sex for one of the specimens. I consider the female and male with the type labels as syntypes and choose the female with the following labels as lectotype to preserve stability of the name: "Nevada," "type" "*Aulacus erythrogaster* [handwritten]." The male with the type label is a paralectotype. The other male and female, without "type"

labels were undoubtedly part of the type series, but since the sexes do not match and they lack a type label, I do not consider them paralectotypes. All specimens are clearly labeled. *Aulacus erythrogaster* was correctly placed as a synonym of *Pristaulacus rufitarsis* (Cresson) by Townes (1950).

Aulacinus costulatus Kieffer 1904: 561. The female was described and the locality given is "Brasilien." Kieffer did not state the number of specimens examined. One female at NHRS bears the labels "Brasil," "F. S ... [illegible, probably the collector]," "Type," and "Aulacinus costulatus [handwritten]." I designate this specimen as lectotype to preserve stability of the name. This species was correctly placed as *Aulacus costulatus* by Smith (2001). There are four other specimens identical to the lectotype at NRHS from "S:ta Catharina, Nova Teutonia, Brasil, 1.1938, Fr. Plaumann."

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LITERATURE CITED

- Kieffer, J. J. 1904. Beschreibung neuer Proctotrypiden und Evaniiden. *Arkiv för Zoologi* 1: 525–562.
- Roman, A. 1917. Schlupfwespen aus Amazonien. *Arkiv för Zoologi* 11: 1–24.
- Smith, D. R. 2001. World catalog of the family Aulacidae (Hymenoptera). *Contributions on Entomology, International* 4(3): 263–319.
- . 2005. Aulacidae (Hymenoptera) of northern South America, emphasizing Colombia. *Transactions of the American Entomological Society* 131: 217–253.
- Townes, H. 1950. The Nearctic species of Gasteruptiidae (Hymenoptera). *Proceedings of the United States National Museum* 100: 85–145.

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